

PATENT
APPLICATION NO 10/045,517

REMARKS

In the patent application, claims 1-12 are pending. In the office action, pending claims 1-12 were rejected. By virtue of this amendment, no claims have been changed and the drawing has been amended. As such, claims 1-12 are at issue.

Line Numbers

In paragraph 2 of the Office Action, the Examiner requested that each claim include line numbers. As listed above, the claims include line numbers for each line as requested.

Drawings

In paragraph 3 of the Office Action, the Examiner objected to the drawing because each element is not labeled. By virtue of the present amendment, the drawings have been changed to better label each element. The text for each label has been taken from the Specification, so there is no new matter added with this amendment. In addition, duplicated elements 16a, 16b, and 16c have been removed, so that there is now only one 16a, one 16b, and one 16c. Applicants contend that the drawing is now in condition for acceptance.

35 U.S.C. § 102

In the March 11th Office Action, claims 1-12 have been rejected under 35 U.S.C. § 102(e) as being anticipated by Kopetz (US Patent 6,145,008). Applicants respectfully traverse this rejection, noting that Kopetz does not disclose each and every limitation of the claims. See e.g. *RCA Corp. v. Applied Digital Data Systems*, 730 F.2d 1440, 1444 (Fed. Cir. 1984) (Anticipation is established only when a single prior art reference

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discloses each and every element of a claimed invention.)

Independent claim 1 requires, among other limitations, the step of "determining if the bus master is prepared to receive further data". This step is not disclosed in Kopetz.

Kopetz does not contain any discussion of the ability of the master to receive messages. The Office Action cites to column 3, lines 38-46 where it states:

At any one time a communication system contains one active master node and a set of slave nodes. All communication activities are organized into rounds. A round is the transmission of a sequence of messages that is specified a priori in a Message Description List (MEDL). The MEDL contains the point in time when a message has to be sent or will arrive relative to the start of the round and the attributes of each message, e.g., the length of the message, the type of the message, and the location of the message data in the memory.

However, this does not discuss the determination of the ability of the master to receive information. It just says that the communications activities are organized in rounds. There is no discussion in Kopetz of data overwhelming the master or of how to manage the flow of the data. Therefore, the disclosure in Kopetz is not the same as the present invention's determination of readiness for receiving further data. Accordingly, Applicants respectfully submit Kopetz does not disclose the "determining" step of claim 1.

Furthermore, Kopetz does not disclose use of a CANOpen Network, as is provided in the preamble of claim 1. There is no mention in Kopetz to the CANOpen protocol. Kopetz does mention the use of communication control units such as CAN in column 3, line 2. However, CAN is a low level communications protocol (Data Link or level 2 layer), whereas CANOpen is a high level protocol (Applications or level 7 layer). While CANOpen might make calls to a lower level CAN protocol, it is not similar to the CAN protocol because they are different layers and different protocols.

Finally, claim 1 requires the use of an I/O module in many elements of the claim. Kopetz, however, does not disclose the use of I/O modules. In the Background of the

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Invention section of the present application, Applicants describe "a CANOpen network includes a plurality of analog I/O modules as well as a plurality of discrete (on/off) I/O modules". There is no discussion in Kopetz of I/O modules. Instead, Kopetz discusses slave devices that presumably are the devices listed in the Field of Invention section of Kopetz: "There is an increasing tendency to replace electromechanical control devices within an automobile, such as an engine controller or a power window controller, by single-chip computer nodes." (Kopetz column 1, lines 29-32). An automotive engine controller or a power window controller are very different from the claimed I/O modules.

In view of the above, Applicants respectfully submit Kopetz can not anticipate claim 1. Accordingly, claim 1 is in condition for allowance.

Independent claims 5, 6, 10, 11, and 12 are similarly directed to CANOpen networks and require the bus master be ready for further data, that the network be a CANOpen network, and the use of I/O modules. As discussed above, these limitations are not disclosed in Kopetz. Accordingly, Applicants respectfully submit these claims are also not anticipated by Kopetz.

Independent claims 11 and 12 contain the further limitation of a "computer readable medium". There is no discussion in Kopetz of a "computer readable medium" and the Office Action makes no mention of this limitation. Again, there is no anticipation of these claims because Kopetz does not contain each and every limitation of the claims.


Each of claims 2-4 and 7-9 are dependent claims based upon independent claims that the Applicants have shown to be distinct. Since these dependent claims contain each and every limitation of the base claims, Applicants respectfully submit Kopetz does not anticipate such claims.

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Conclusion

Accordingly, Applicants respectfully submit that, in light of the above remarks, claims 1-12 are in condition for allowance. Applicants respectfully request the Examiner to withdraw the rejections and to allow the claims to issue. The Commissioner is authorized to charge deposit account 19-3875 (SAA-74) for any fees associated herein.

Respectfully submitted,

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